XTi SERIES

XTi 1000

Architectural & Engineering Specifications

XTi 1000

The Crown® XTi 1000 power amplifier shall be a solid-state two-channel model with a switch-mode universal power supply.

The outputs shall be usable as stereo or bridged-mono modes of operation. The bridged-mono mode shall bridge the outputs to provide increased output voltage.

The amplifier shall contain controlled slew-rate voltage circuitry to protect it against radio frequency interference burnouts. It shall also be protected from current overload at its output stage. The slew rate of the amplifier shall be greater than 30 volts per microsecond in stereo mode.

The amplifier shall temporarily go into a standby mode if its power transformer becomes excessively hot and shall automatically resume normal operation once it has cooled to a safe operating temperature.

Front-panel controls shall include a power on/off switch, a detented input level control for each channel and three buttons for menu navigation of the front-panel LCD screen and front panel lockout.

The front panel shall have the following indicators:
Signal Indicator: Green LED, one per channel, illuminates when a very low-level signal is present at input. May be used for troubleshooting cable runs. –10 Indicator: Green LED flashes when output signal exceeds –10 dB below clip. –20 Indicator: Green LED flashes when output signal level exceeds –20 dB below clip. Ready Indicator: Green LED, one per channel, illuminates when the amplifier is ready to produce audio. Clip Indicator: Red LED, one per channel, turns on at the threshold of audible distortion. Thermal Indicator: Red LED, one per channel, illuminates under excessive temperature conditions. Power Indicator: Blue LED illuminates when the amplifier has been turned on and has power.

The rear panel shall have the following connectors:
AC Line Connector: NEMA 5-15P (15A). Input Connector: XLR, one per channel. Link/Out Connector: Loop-thru signal from input connector for linking to another amplifier, one per channel. Output Connectors: Two Neutrik® Speakon® NL4MP (mates with NL4FC) output connectors. Channel-1 Speakon® shall be wired with Ch. 1 and Ch. 2 outputs for use with optional single 4-conductor cable. Two binding post outputs (in parallel with Speakon® connectors). HiQnet USB Connector: Type B, connects to a HiQnet network.

The power amplifier shall meet or exceed the following power criteria at 1 kHz: 2 ohm Stereo (per channel): 700W with 1%THD (not rated for 100V versions), 4 ohm Stereo (per channel): 500W with 0.5% THD, 8 ohm Stereo (per channel): 275W with 0.5% THD, 4 ohm Bridge-Mono: 1,400W with 1% THD (not rated for 100V versions), 8 ohm Bridge-Mono: 1,000W with 0.5% THD.

The amplifier shall meet or exceed the following performance criteria: Voltage Gain at 1kHz, 8 ohm rated output: 30.5 dB. Frequency Response: +0/–1 dB from 20 Hz to 20 kHz at 1 watt into 4 ohms. Load Impedance: Safe with all types of loads. Rated for 2 to 8 ohms in Stereo mode, 4 to 16 ohms in Bridge-Mono mode. The XTi 1000 A1 (100V version) is rated for 4 to 8 ohms Stereo, 8 to 16 ohms Bridge Mono. Sensitivity: 1.4V. Signal to Noise Ratio (below rated 1 kHz power at 8 ohms): 100 dB (A weighted). Damping Factor: Better than 500 from 20 Hz to 400 Hz. Crosstalk: > 70 dB below rated power, 20 Hz to 1 kHz. Input Stage: Input shall be electronically balanced and shall employ precision 1% resistors. Input Impedance (nominal): 20 k ohms balanced and 10 k ohms unbalanced. Maximum Input Signal: +22 dBu typical. AC Line Current: 6.5A. At idle, the amplifier shall draw 90 watts or less. Operating Temperature: 0° C to 40° C at 95% relative humidity (non-condensing).

The amplifier shall include Digital Signal Processing with these functions: Input EQ: 6 parametric filters per channel with adjustable Q, ±15 dB boost/cut. Also adjustable high and low shelving filters. This 8-filter EQ section can be bypassed.

Crossover Filters: Highpass and lowpass per channel. Butterworth 6/12/18/24 dB per octave. Linkwitz-Riley 24/48 dB per octave. Also includes ±15 dB bandpass gain and polarity control.

Delay: For signal alignment of driver; 50 mS total delay.

Subharmonic Synthesizer: Takes the low-frequency content of the input signal and "synthesizes" a new signal that is the same as the input signal but one octave lower. The new synthesized signal is then mixed with the original signal to create the effect.

Output Limiter: Prevents clipping.

Presets: 20 presets, 19 of which are user-definable.

The amplifier shall be safe when driving any kind of load—even highly reactive ones.

AC line voltage and frequency configurations available shall be 100V, 120V, 220-240V, 50/60 Hz.

The amplifier shall have a rugged steel chassis coated with environmentally friendly powder. The amplifier shall be fan-cooled.

The dimensions of the amplifier shall allow for 19 inch (48.3 cm) EIA standard (RS-310-B) rack mounting. The amplifier shall be 3.5 inches (8.9 cm) tall and 12.25 inches (31.11 cm) deep behind mounting surface.

The amplifier shall weigh 18.5 lb pounds (8.4 kg).

The amplifier shall be designated the Crown XTi 1000.

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